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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,498	06/28/2001	Shigekazu Yamagishi	10873.735USW	3994

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EXAMINER

CRUZ, MAGDA

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,498

Applicant(s)

YAMAGISHI ET AL.

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 25 September 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "color shading eliminating means having a light incident side lenticular lenses that are *arranged so that the lengthwise direction thereof are directed in a vertical direction* for converging incident light from the collimating means in a horizontal plane" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- a. In claims 1-3, the applicant failed to have enough disclosure on the specification and the drawings, regarding to the "color shading eliminating means having a light incident side lenticular lenses that are arranged so that the lengthwise direction thereof are directed in a vertical direction for converging incident light from the collimating means in a horizontal plane".
- b. Claims 4-9 falls with parent claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirata et al.

Hirata et al. (US Patent Number 5,485,308) discloses a rear-projection image display (1) comprising a trichromatic image projection section (7R, 7G, 7B) corresponding to the colors of red, green, and blue (column 13, lines 32-33). The three image projecting section includes an image display element (8R, 8G, 8B) and an image illuminating lens for enlarging, superimposing and projecting the image to be displayed (column 13, lines 34-41). The screen (i.e. rear-projection display) includes collimating means (i.e. Fresnel lens; element 2) for converting incident light having a predetermined flare and from each of the image projecting sections into telecentric light and allowing

the telecentric light to exit (column 13, lines 41-43). A color-shading eliminating means (3) having on its light-incident-side lenticular lenses (31) for converting incident light from the collimating means (2) in a horizontal plane, and on its light-exit-side lenticular lenses (32) having one-to-one correspondence to the light-incident-side lenticular lenses (31), to allow principal rays of the respective lights of the colors (10R, 10G, 10B) to be substantially parallel with one another (column 14, lines 9-16), the respective lights being from the image projecting sections (7R, 7G, 7B) and having passed through the collimating means (2). A light diffusing means (4) including on its light-incident surface, lenticular lenses (41) that converges incident light from the color-shading eliminating means (3); black stripes (16) formed with a material having a light absorbing property (column 5, lines 43-44) in a region except for places where the incident light is converged (42), a light diffusing layer (15) made of a material containing a light diffusing material (column 5, lines 30-33), and a material of the substrate being non-colored or colored (column 12, lines 34-36); wherein a focal length of each of the light-exit-side lenticular lenses (32) of the color-shading eliminating means (3) is substantially equal to a distance (column 16, lines 18-23) therefrom to corresponding one of the light-incident-side lenticular lenses (31), and the width in a horizontal direction (Figure 33; column 23, lines 49-52) is formed by each of the light-incident-side lenticular lenses (31) corresponding to each of the light-exit-side lenticular lenses (32). A color shading eliminating means (3) having a light incident side lenticular lenses (31) that are arranged so that the lengthwise direction thereof are directed in a vertical direction for

converging incident light from the collimating means in a horizontal plane (column 7, lines 14-33).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al. in view of Dubin et al.

Hirata et al. (US Patent Number 5,485,308) teaches the salient features of the present invention, except a plurality of micro beads made of a transparent material provided on the light-incident surface of the substrate sheet, light transmitting portions being formed between the substrate sheet and the micro beads and the light-incident surface of the substrate sheet, except for the light transmitting portions that is covered with an opaque binder. However, Hirata et al. discloses a second lenticular lens sheet.

Dubin et al. (US Patent Number 6,278,548 B1) discloses a plurality of micro beads (80) made of a transparent material provided on the light-incident surface (column 12, lines 10-15) of the substrate sheet (85), light transmitting portions (82) being formed between the substrate sheet (85) and the micro beads (80) and the light-incident surface of the substrate sheet, except for the light transmitting portions (82) that is covered with an opaque binder (81).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the plurality of micro beads on the light-incident surface of the substrate sheet disclosed by Dubin et al. in substitution of the second lenticular lens sheet from Hirata et al.'s invention, for the purpose of providing an angle re-distributing prescreen that minimizes or eliminates the screen sensitivity to the projector location, in conjunction with a screen having established screen characteristics (column 3, lines 19-27).

Response to Arguments

8. Applicant's arguments filed 06/04/2003 have been fully considered but they are not persuasive.

The applicant has argued that the prior art does not teach the "a color shading eliminating means having a light incident side lenticular lenses that are *arranged so that the lengthwise direction thereof are directed in a vertical direction* for converging incident light from the collimating means in a horizontal plane". However, Hirata et al. (US Patent Number 5,485,308) teaches such color shading eliminating means (3) having a light incident side lenticular lenses (31) that are arranged so that the lengthwise direction thereof are directed in a vertical direction for converging incident light from the collimating means in a horizontal plane. This is taught in column 7, lines 14-33. Furthermore, said limitation failed to have enough disclosure on the specification and the drawings.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Mori et al. (US Patent Number 6,502,942 B2) discloses a rear projection display apparatus and translucent screen for use therein.

Dubin et al. (US Patent Number 6,469,930 B1) teaches a display screen and method of manufacture therefor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (703)308-6367. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703)308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.


RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Magda Cruz
Patent Examiner
July 1, 2003